

same os cornu, which may however be branched, but which is in the same way covered by a layer of modified integument; this is known as the "velvet" ; it only lasts for a certain period, and is then torn off by the exertions of the animal itself, leaving behind the bony core, which is popularly termed the horn. It will be clear that here is only a difference of comparative unimportance ; the same essential features are present in both groups of animals, but the modification of the epidermis has progressed along different-lines. Both can be referred back to the primitive conditions seen in the paired horns of the Giraffe. Even the difference, such as it is, is bridged over by the Antelope -*Antilocapra*, where the os cornu is bifid and the horn is periodically shed, as is the velvet of the stag; but in the stag the bony part of the horn is also shed, a state of affairs which has no parallel in the Hollow-horned Huminants. The great *Sivatjieriuin* may conceivably be an annectant form between the two types of compound horns, i.e. those of the Antelope and those of the Deer. This creature had two pairs of horns, of which, naturally, only the bony cores remain ; the hinder pair of these were branched. But although so far they resemble the Deer's horns rather than the Antelope's, Dr. Murie has thought that they were covered by a horny sheath and not by soft skin as in the Deer. In any case these horns were apparently never shed, which is a point of likeness with the Antelope and of difference from the Deer. Apart therefore from the nature of the covering of the bony cores, there are good grounds for looking upon them as intermediate between those of the Deer and those of the Antelopes.

The horns of the Huminants are frequently a secondary sexual character ; this is especially the case with the Deer. The Reindeer is, however, an exception, both the stags and the does having horns. That they are associated with the reproductive function is shown by their being shed after the period of rut, the destruction of the velvet at that period, and also by the effect upon the horns which any injury to the reproductive glands

produces. Some useful facts upon this latter head have been amassed by Dr. Gr. H. Fowler,¹ who noticed in a series of stags, horns showing various degrees of degeneration in the antlers produced by varying degrees and periods of gelding, From the facts

¹ "Notes on some Specimens of Antlers of the Fallow Deer, etc.," *JProc. Zool.* & Soc. 1894, p. 485.